

AMENDMENT TO THE CLAIMS

1. (Currently amended) A helically-toothed-belt transmission device for transmitting driving force by meshing between a helically-toothed belt and a helically-toothed pulley, the device being characterized in that:

when denoting a tooth pitch as "Pt", a tooth helix angle as "θ", and a belt width of said helically-toothed belt as "W", said tooth helix angle "θ" is set in a range of

$$-0.2 \leq 1 - W \cdot \tan \theta / Pt \leq 0.75, \text{ and};$$

denoting a tooth height as "H", a backlash between said helically-toothed belt and said helically-toothed pulley is set to be from 1.6% to 3% of said tooth pitch "Pt" when measured at half the tooth height (1/2 H).

2. (Original) A helically-toothed-belt transmission device for transmitting driving force by meshing between a helically-toothed belt and a helically-toothed pulley, the device being characterized in that:

when denoting a tooth pitch as "Pt", a tooth helix angle as "θ", and a belt width of said helically-toothed belt as "W", said tooth helix angle "θ" is set in a range of

$$1 - W \cdot \tan \theta / Pt \leq 0, \text{ and};$$

compressibility of said helically-toothed belt is set to be from 1.5% to 5%.